

Answers to Community and Commissioner Questions

07.28.2028 Study Session Item 1.A

Comment/Question	Answer
1. The community and commissioners expressed concern regarding artificial turf reaching dangerous temperature levels.	The City does not limit playability on artificial turf based on temperature. The agreements that organizations sign when renting the fields waive liability for the City of injuries sustained from use of the fields. Currently the City sees very little reservation cancelations due to high temperatures. Moving forward, staff have agreed to post signage at Fair Oaks park and update the language in the agreement to more clearly state that there is potential for fields to reach dangerous temperatures. Determination of field playability will remain with the organizations using the fields. It should be noted that Fair Oaks Park does not have irrigation at the site, but does have quick couplers to spray the field down if needed. The field is maintained per manufacturer recommendations.
2. When is the next Parks Project that would utilize the decision tree?	Currently, Las Palmas and Serra Park are in the design process for Park renovations, but neither park will include artificial turf fields. Ortega Park will be up for renovation in 2030, which would be the first use of the decision tree, if Council agrees to its use.
3. When would “alternatives to conventional natural grass” be considered?	“Alternatives to conventional natural grass” is being interpreted as materials, design, installation, and maintenance that differs from what Sunnyvale currently uses (based on the conversations and questions around this topic). Alternatives such as different grass species, different drainage designs, different maintenance methods, etc. would be considered during the park renovation process. In the decision tree there is a step that asks, “can natural grass meet the current and future demand?” At this point, alternatives to the conventional natural grass should be considered as options to meet the demand. The pilot studies will inform the City what potential costs and usability some alternatives may present. Staff have tested out different grass species and are using the grass type that is best suited for our climate. The decision tree language at this step was updated to better reflect this intent.

4. Did this report assess or consider “organic field management”?	Yes, this report assessed organic field management. Case studies and data were supplied by Beyond Pesticides. When following up with cities that were involved with the case studies provided, the data could not be verified by current staff and therefore was not used in the report. The City of Menlo Park was able to provide data in a format that allowed for comparison between current city practices and Menlo Park’s pesticide free practices. Appendix E of the report includes the full cost analysis and information from Beyond Pesticides regarding organic field management. In reviewing scientific, peer-reviewed papers, there was not conclusive evidence that organic field management practices result in more playing hours than conventional management practices. Due to the lack of consistent and verifiable data to support Beyond Pesticides information, the report is recommending conducting a City of Sunnyvale initiated pilot program to determine cost and playability data for organic field management.
5. Request to move up question of whether environmental impacts can be addressed in the decision tree.	The first question of the decision tree is related to high use intensity, which is the determining factor for even considering artificial turf. The second question is whether natural grass can meet the current demand, which aligns with the recommendation to prioritize conserving natural grass. The third question is regarding mitigation of environmental impacts. This should not displace the other two questions, but remain where it is in the tree.
6. There were a lot of questions around the definition of terms used in the decision tree. For example, “how is ‘high-intensity activities’ defined?”, “when are alternatives to conventional natural grass management considered?”	The decision tree is meant to be a planning level tool, consistent with the scope of this study. The exercise of defining terms and considerations at the various steps of the tree will be completed by staff after direction is received by Council. In some cases, these definitions may change or be variable dependent on the park, best available data, recreational programming needs, etc. When the decision tree is implemented, it should be used with the best available data, technology, management practices, etc. at that time.

7. For the private property policy recommendation, why is the policy recommendation not more concrete? What would enforcement of a policy like this look like?	A study would need to be undertaken to develop policies and guidelines for artificial turf installations on private property. This work is beyond the scope of this report and not currently in the workplan of the Community Development Department's Policy Team. If standards for artificial turf on private property were to be implemented, enforcement of those standards would follow existing development review procedures. For single-family and small residential properties, when there is a project that triggers a permit for Landscaping and Irrigation, the city's Project Review Committee (PRC) staff can review for consistency with any regulations during its review of the Miscellaneous Plan Permit (MPP) or Design Review (DR). For larger multi-family and mixed-use development projects, the PRC can review for consistency during the formal planning application review. Constructed projects found to be inconsistent with City regulations could be subject to the City's Code Enforcement process.
8. In general, there was scrutiny and confusion about the comparison between natural grass and artificial turf hours of play.	The presentation has been updated to discuss hours of play in more detail and earlier to help dispel confusion. There are a variety of ways to look at and measure hours of play. Slide 7 displays a comparison of these various measurements and recommendations. These data points represent a conventionally managed natural grass field versus an artificial turf field and does not take into account mitigation measures or alternative/newer methods of maintenance. Currently, the only way for the City to measure hours of play time on the Parks is through reservations made to rent the sports fields. Council has considered Priority Projects in the past regarding implementing data collection methods for unreserved Parks use, but has not funded those projects. The purpose of the table is to demonstrate that there are recommended ranges of hours of play for each surface type. Currently, the City is not following these recommendations. It should be noted that the upper end of play time on grass fields is significantly shorter than the upper end of play time on artificial turf fields. Its also meant to show that some natural grass fields might benefit from a reduction in play time in order to improve field quality.
9. Hours of play only looks at sports fields and does not capture the other uses a Park provides the community. Artificial turf fields generally become sports facilities that do not provide the same passive uses as natural grass open space parks.	How a field is generally used by the community and what the impacts of turning a park into a more frequented sports facility are, would both be issues considered as part of the park renovation process. The decision tree would help ensure each of these factors are evaluated prior to moving forward with a surface type. Questions 2 and 5 of the decision tree are both points at where the variety and different uses a park can offer will be considered.

10. Where would the organic field pilot occur?	Since, presenting to the Commissions, staff have determined that Washington Park would be the likely best candidate to conduct an organic field management pilot. It is recommended to be coupled with the pesticide free park pilot, but these pilots are not dependent on one another. Staff are still determining final scope and funding for these pilots, which will likely come through the project Washington Park’s irrigation system is of good quality, which was a large factor in determining suitability for the pilot.																					
11. What kind of access to artificial turf is there for the disabled community (e.g. can wheelchairs use AT fields to play provided there are a lot of restrictions on what can be done on AT fields)?	Artificial turf does not preclude accessibility to the disabled community, including use by wheelchairs. The durability and surface type will vary based on the manufacturer. A review of manufacturer websites indicates that there are artificial turf products that are made to meet ADA standards for wheelchair accessibility. Similar to other comparisons of artificial turf and natural grass there are pros and cons to each. For example, artificial turf can provide a firm and consistent surface that provides less rolling resistance. Natural grass can have a more uneven surface with ruts and excess moisture. The artificial turf surface can get hotter than the natural grass surface. There are generally no blanket manufacturer restrictions that ban wheelchair use on synthetic turf athletic fields. Major manufacturers test and design these fields to meet ADA standards for wheelchair accessibility. Per FieldTurf lanscape.com and conversations with several synthetic turf companies. <table><tr><th colspan="3">Comparison Table</th></tr><tr><th>Factor</th><th>Natural Grass</th><th>Synthetic Turf</th></tr><tr><td>Wheelchair Mobility</td><td>Can vary with moisture, wear, and soil conditions.</td><td>Generally firm and consistent surface.</td></tr><tr><td>Rolling Resistance</td><td>May increase when surface is soft or wet.</td><td>Typically lower and more consistent.</td></tr><tr><td>Accessibility</td><td>Can be affected by ruts, mud, and uneven areas.</td><td>Can be designed/tested for accessibility standards.</td></tr><tr><td>Drainage</td><td>May require closure after heavy rain.</td><td>Usually drains quickly and returns to play sooner.</td></tr><tr><td>Durability</td><td>Can wear in high-use areas.</td><td>Handles intensive use well.</td></tr></table> Sources Sports Health: Synthetic Turf: History, Design, Maintenance, and Athlete Safety (PMC). The Motz Group: ADA Accessibility Testing on Motz Synthetic Turf Infill Systems. SYNLawn: ADA Compliant Artificial Turf Systems – The Basics. ASTM F1951 Wheelchair Accessibility Testing Report (K9 Grass / Testing Services).	Comparison Table			Factor	Natural Grass	Synthetic Turf	Wheelchair Mobility	Can vary with moisture, wear, and soil conditions.	Generally firm and consistent surface.	Rolling Resistance	May increase when surface is soft or wet.	Typically lower and more consistent.	Accessibility	Can be affected by ruts, mud, and uneven areas.	Can be designed/tested for accessibility standards.	Drainage	May require closure after heavy rain.	Usually drains quickly and returns to play sooner.	Durability	Can wear in high-use areas.	Handles intensive use well.
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12. Is there flexibility with the restrictions that we list for what is not allowed on the artificial turf fields? Seemed to generally not allow a lot of other activities people would do at a park	These restrictions follow the recommendations made by the manufacturer for best maintaining the field to its full expected lifetime. This also ensured the fields warranty remains valid. Veering from the manufacturer recommendations could cause the city to jeopardize its warranty or damage the field.
13. Do artificial turf fields really use less water than natural grass fields?	On an annual basis, artificial turf uses far less water than natural grass. When considering the water used during the manufacturing of artificial turf, published science papers are not definitive. Some reports include the water needed to extract and refine crude oil while others look at just the water used during the manufacturing of the artificial turf. However, it is no longer supported as a water conservation measure in our region. Valley Water released an information sheet explaining why it does not qualify for their programs.
14. Is artificial turf recyclable?	Our report finds that while artificial turf can be recycled, it is not clear to what extent the turf is being recycled or how to accurately quantify the amount of recycled material. There are very few facilities in the United States that are able to recycle the material. No facility has been identified in the United States that can fully recycle an old artificial turf field into a new artificial turf field. When and where recycling is occurring, components of the artificial turf field can be turned into feedstock for new fields, but the multi-media composition of artificial turf makes it hard to separate and recycle the material. Emission considerations to recycle turf are not fully quantifiable. Old artificial turf fields are also repurposed in some instances to get more use out of the product.
15. Why does the report not recommend that artificial turf only be for repurposing of uses?	The recommendation is made for Sunnyvale to consider putting artificial turf in places where there is already paved or impervious ground cover where natural grass would not be feasible, providing an alternative to replacing a natural grass field with artificial turf. However, the opportunities for this repurposing will be limited therefore the recommendation allows for artificial turf to be considered after all other options (including repurposing) have been considered. Repurposing utilizing artificial turf will be considered at the project and planning levels, since such cases are facility dependent.

16. Can recycled water be used as a mitigation to high water use of natural grass fields?	Yes, however there are currently some barriers to implementing this. The first is the recycled water infrastructure distribution. Most Parks do not have access to recycled water. The second is the salinity and quality of the water. Additional treatment measures may be needed to offset the increased salinity and dissolved solids in the recycled water. The City's Recycled Water Master Plan prioritizes extensions to parks, schools and golf courses along or near the Recycled Water distribution system and the City's Clean Water Program is studying improving recycled water quality to reduce salinity. Long term, recycled water can be a viable option.
17. In the cost comparison table, why is 544 hours of play used for natural grass in the cost comparison and what is the breakdown of how this number is calculated?	The cost comparison included in this report is from a case study done in Los Gatos. The hours are based on general recommendations for each surface type, and not based on specifics for Sunnyvale or Los Gatos. It is expected that there can be variation in the total hours annually each surface type can be used, but this table is based on the consultant's experience as well as industry best practices. Professional managers of athletic fields recommend a range of 2 hours a day weekdays and 5 hours a day on weekends, for a total of 20 hours per week, of use for natural grass. This is for only 32 weeks of the year, to account for time to let the grass rest. A total of 96 hours per year (15%) is deducted to account for time when the fields are not useable after rain events in which the fields would be closed to protect the conditions of the field and avoid ruts, holes, or other damage to the playing surface. Artificial turf doesn't have similar restrictions on usage. It is estimated to be used more weeks during the year, but does account for slowdowns/closures during the holidays, for maintenance reasons, and off-seasons for sports.